Claims.

1. Pneumatic high speed motor, comprising a stator housing (10,26), a rotor (20) journalled in said stator housing (10,26), a pressure air inlet passage (33,34), a speed governor valve (28-31) shiftable between an open position and a closed position for controlling the pressure air flow through said inlet passage (33,34), and a spring (38) arranged to continuously bias said speed governor valve (28-31) in the direction of said open position, c h a r a c t e r i z e d in that an air compressor (46) is driven by said rotor (20) and arranged to deliver a rotor speed responsive output pressure, said speed governor valve (28-31) includes a valve element (29) having an activating surface (44) exposed to the output pressure of said air compressor (46) for generating a pressure responsive activating force on said valve element (29) and accomplishing shifting of said speed governor valve (28-31) in the direction of said closed position against the bias force of said spring (38) at rotor speed levels exceeding a desired operating speed level.

2. Rotation motor according to claim 1, wherein said valve element (29) is rotation symmetric, and said activating surface (44) is formed by an end surface (44) of said valve element (29).

3. Rotation motor according to claim 1 or 2, wherein said spring (38) is pre-tensioned by a support member (37) adjustably mounted in the stator housing (10,26).

4. Rotation motor according to anyone of claims 1-3, wherein said air compressor (46) is a turbo compressor.

5. Rotation motor according to claim 4, wherein said turbo compressor (46) is an axial flow type turbo compressor.

6. Rotation motor according to claim 4 or 5, wherein said turbo compressor has a rotor integrated with said motor rotor (20).